



# GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

## ARABIDOPSIS CHAMBER - AR-95L2



Model	AR-95L2
Exterior Dimensions (WxDxH)	95.9" x 37.1" x 78.5"
Temp. Range (w/ lights on)	10-44C +/- 1C
Interior Space	95.9 cu.ft.
Total Shelving Floor Area	28.6 sq.ft.
Maximum Growing Height	25.6"
Light Intensity (6" from lamps)	300 micromoles/m2/sec
Number of Tiers	2

### Applications

\*This chamber is frequently used for Arabidopsis thaliana, Brassica sp., lettuce, spinach and other plants with lower light intensity requirements.

\*Many other applications exist for this product

### Percival's IntellusUltra Controller

\*Percival Scientific has built a reputation of providing flexible, customized options for research scientists around the world. We have taken that philosophy to the next level with our improved IntellusUltra Controller. Now choose from the levels of functionality that meet your research needs.

### Lighting System

\*Two light fixtures per tier (each fixture is removable and individually adjustable)

\*Light fixtures yields up to 300 micromoles/m2/sec at 6" from lamps, utilizing a balanced spectrum for plant growth using fluorescent and incandescent lamps

### Lighting System cont.

\*Two levels of programming of fluorescent lighting and two levels of programming of incandescent lighting (therefore with 50% of each lamp energized, the chamber yields 150 micromoles/m2/sec at 6" from lamps)

\*Programming and control of the lighting is done via IntellusUltra real time controller

### Airflow/Circulation

\*Air circulation inside chamber is from a specifically designed air diffuser (air travels along entire back wall, over the shelves and returns to the ceiling fans through an opening between the light fixtures and the doors)

### Cabinet Construction

\*Standard chamber controls are on right hand side

\*Chambers built in panel sections each consisting of 2" thick urethane insulation

\*Metal interior and exterior surfaces

\*Cam-type fasteners and vinyl gaskets

\*Interior and exterior constructed of 22-gauge electro-zinc plated steel

\*Stainless steel floor

\*Chamber floor equipped with floor drain with attached 3/4" plastic tubing

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### Cabinet Construction cont.

- \*Chamber cabinet is attached to angle frame base containing heavy duty swivel casters
- \*Two 1 1/4" diameter access ports

### Insulation

- \*Woodless construction using foam-in-place 2" thick CFC free urethane insulation foam (this is an environmentally friendly foam with global warming potential [GWP] of 0.0 and ozone depletion potential [ODP] of 0.0)

### Doors

- \*Two doors each with an opening of 22.7" x 57.6" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)

### Shelving

- \*Four shelves (two tiers) of solid stainless steel shelving (each shelf is 36.8"D x 28"W)
- \*Shelves are adjustable in 1/2" increments

### Finish

- \*Interior and exterior painted with high reflective, environmentally friendly, high temperature baked white powder coating

### Convenience Receptacles

- \*Two 115/1/60 convenience receptacles provided inside chamber

### Electrical Requirements

- \*Consult Geneva Scientific for electrical requirements and amperage draw.

### Temperature Range

- \*10-44C (+/- 1C) with lights on (full fresh air) within work area on horizontal plane and 10-44C (+/- 1C) with lights off

### Refrigeration

- \*Self-contained water-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continuous running condensing unit ensures precise temperature control by alternating cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)
- \*Solenoid valves have extended stem for quiet and long life operation
- \*Heat rejection to the ambient by standard refrigeration system with a water-cooled self-contained condensing unit is 2000 BTU/hr
- \*Heat rejection to the ambient from an optional air-cooled self-contained condensing unit is 14000 BTU/hr
- \*Condensing Unit Water Requirement: 65 GPH (average)
- \*7.0 PSIG pressure drop
- \*1/2" water-regulating valve
- \*Water coolant supply is 60F on inlet and 70F at outlet (with evaporator coil at 25F and condenser at 100F) (Consult Geneva Scientific for water services and heat rejection to the ambient when adding accessories to the chamber.)

### Temperature Safety Limit Controls

- \*Experiment Protection: Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- \*Controls shut down all power to chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

### Options

- \*Additive Humidity Control and Dehumidifier with Sensor
- \*IntellusUltra Connect
- \*Android-Based Touch Screen
- \*CO2 Enrichment Package
- \*Dry Alarm Contacts
- \*Dimmable Lighting
- \*LED Lighting in Lieu of Fluorescent Lamps



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